

What is claimed is:

1. A method for use in connection with a document stacker comprising an actuator, the method comprising:  
  
    sensing electric signals from the actuator during a document stacking operation;  
  
    and  
  
    determining whether an abnormal event has occurred based on the sensed signals.
2. The method of claim 1 including operating the actuator to store a document in a cassette.
3. The method of claim 1 including operating the actuator to cause movement of a piston to store a document in a cassette.
4. The method of claim 1 wherein sensing electric signals includes sensing values indicative of actuator load and wherein determining whether an abnormal event has occurred includes comparing an amount of time that has elapsed between specified sensed values of actuator load to a predetermined amount of time.
5. The method of claim 1 including identifying an amount of time that has elapsed from a specified point in the stacking operation to a peak value of actuator load, wherein determining whether an abnormal event has occurred is based on the identified amount of time.

6. The method of claim 1 including identifying an amount of time that has elapsed from a specified point in the stacking operation to a predetermined threshold value of actuator load, wherein determining whether an abnormal event has occurred is based on the identified amount of time.

7. The method of claim 1 wherein sensing electric signals includes sensing signals indicative of actuator load and wherein determining whether an abnormal event has occurred includes comparing an actual profile of the actuator load with an expected profile.

8. The method of claim 1 wherein sensing electric signals includes sensing signals indicative of actuator load, wherein the method includes integrating the actuator load for a specified period of time during a document stacking operation to obtain an integrated value, wherein determining whether an abnormal event has occurred is based on the integrated value.

9. The method of claim 1 wherein determining whether an abnormal event has occurred includes comparing at least one value derived from the sensed values to at least one reference value.

10. The method of claim 8 wherein the sensed values are indicative of actuator load.

11. The method of claim 9 including adjusting the at least one reference value based on previously sensed values of actuator load.
12. The method of claim 1 including using the sensed signals to determine whether a document cassette is full or the stacker is jammed.
13. The method of claim 1 including:
  - receiving a document in a document acceptor;
  - determining whether the document is considered to be valid;
  - transporting the document from the acceptor to the stacker; and
  - storing the document in a cassette.
14. An apparatus comprising:
  - a document stacker including:
    - a cassette to store documents;
    - a piston to push a document into the cassette;
    - an actuator to control movement of the piston; and
    - first circuitry to sense electric signals from the actuator; and
  - second circuitry coupled to the actuator to control operation of the actuator and coupled to the first circuitry to obtain signals indicative of how the actuator is functioning during a document stacking operation, wherein the second circuitry is adapted to determine whether an abnormal event has occurred based on the signals indicative of how the actuator is functioning.

15. The apparatus of claim 13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and wherein the second circuitry is adapted to compare an amount of time that elapses between specified values of the sensed signals to a predetermined amount of time and to determine whether an abnormal event has occurred based on the comparison.

16. The apparatus of claim 13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and wherein the second circuitry is adapted to identify an amount of time that elapses from a specified point in the stacking operation to a peak value of actuator load and to determine whether an abnormal event has occurred is based on the identified amount of time.

17. The apparatus of claim 13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and wherein the second circuitry is adapted to identify an amount of time that elapses from a specified point in the stacking operation to a predetermined threshold value of actuator load, and to determine whether an abnormal event has occurred is based on the identified amount of time.

18. The apparatus of claim 13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and wherein the second circuitry is adapted to compare an actual profile of the actuator load with an expected profile and to determine whether an abnormal event has occurred based on the comparison.

19. The apparatus of claim 13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and wherein the second circuitry is adapted to integrate the actuator load for a specified period of time during a document stacking operation to obtain an integrated value and to determine whether an abnormal event has occurred based on the integrated value.

20. The apparatus of claim 13 wherein the second circuitry is adapted to compare at least one value derived from the sensed values to at least one reference value and to determine whether an abnormal event has occurred based on the comparison.

21. The apparatus of claim 19 wherein the electric signals are indicative of actuator load.

22. The apparatus of claim 20 wherein the second circuitry is adapted to adjust the at least one reference value based on previously sensed values of actuator load.

23. The apparatus of claim 13 wherein the second circuitry is adapted to use the signals indicative of how the actuator is functioning to determine whether the cassette is full or the stacker is jammed.

24. The apparatus of claim 13 wherein the actuator includes a direct current motor.

25. The apparatus of claim 13 including:
- a document acceptor to receive a document and determine its validity; and
  - a transport mechanism to transport the document from the acceptor to the stacker
- if the document is determined to be valid,
- wherein the stacker is configured to store the transported document in the cassette.